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ARMSTRONG
LABORATORY

**HAZARDOUS WASTE STREAM CHARACTERIZATION SURVEY,
HOLLOMAN AIR FORCE BASE, NEW MEXICO**

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**OCCUPATIONAL AND ENVIRONMENTAL
HEALTH DIRECTORATE
Brooks Air Force Base, TX 78235-5114**

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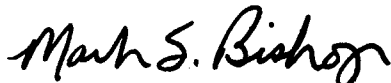
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We greatly appreciate the technical assistance and logistical support provided by personnel assigned to Bioenvironmental Engineering at Holloman AFB during the survey. SMSgt Gene Gordon, Superintendent, Bioenvironmental Engineering, 49th Medical Group/MGPB, was very supportive during this survey. A special note of thanks is given to SrA Sandra Hawkins, 49th Medical Group/MGPB, a dedicated bioenvironmental engineering technician who provided extensive support to our survey team before, during, and after the survey. Without her support this hazardous waste stream survey would not have been possible.

**HAZARDOUS WASTE STREAM CHARACTERIZATION SURVEY,
HOLLOMAN AIR FORCE BASE, NEW MEXICO**

INTRODUCTION

The Holloman Air Force Base (AFB) Bioenvironmental Engineering Services (BES) requested assistance on 1 Apr 92 from the Armstrong Laboratory, Occupational Environmental Health Directorate, Bioenvironmental Engineering Division, in performing a baseline hazardous waste characterization survey of all active waste streams on Holloman AFB (Appendix A). This survey was prompted by increased regulatory oversight of all environmental programs at Holloman AFB and the desire by the Base Environmental Engineering Division (49 CES/DEV) and the BES to improve the overall management of the base's hazardous waste program. The survey results will be used to improve the Base Hazardous Waste Management Program. The scope of the survey was to address hazardous waste management practices and evaluate opportunities for waste minimization.

The presurvey was conducted on 29 - 30 Apr 92 by

Capt Nancy S. Miller, AL/OEBE.

The sampling survey was conducted on 22 - 24 Jun 92 by the following personnel:

Capt Eric R. Hopwood
TSgt Mark S. Bishop

AL/OEBE
AL/OEBE

Base Description

Holloman AFB is located in southern New Mexico and is 8 miles southwest of the town of Alamogordo. The base is headquarters for the 49th Air Division and is home to the 49th Tactical Fighter Wing consisting of T-38 Talon, F-4G Wild Weasel and F-117A Stealth aircraft. The 83d Tactical Control Squadron and the 6585th Test Group are assigned to the base. Twenty other tenant units are located at Holloman AFB, including the 4th Satellite Communications Squadron (AFSPACECOM), Air Force Geophysics Laboratory detachment, and a U.S. Army unit. The base property covers over 57,000 acres situated at an altitude of 4,093 feet above sea level. There are 1,551 family housing units and 483 transient quarters on Holloman AFB.

Hazardous Waste Program

The Base Hazardous Waste Management Program is managed by the 49th CES/DEV. The BES is responsible for supporting the program through annual industrial shop surveys, sampling waste streams, and interpreting analytical data. The base has a Part B permit for a permitted hazardous waste facility. The permit was issued by the State of New Mexico, which has primacy for hazardous waste enforcement. The Defense Reutilization and Marketing Office (DRMO) located on Holloman AFB is responsible for storage and contractual removal of hazardous waste. The base currently has approximately 116 industrial shops and 25 potential active hazardous waste streams. Due to technical expertise required to accomplish the baseline survey, BES requested AL/OEBE support.

Individual shops are responsible for identifying, segregating, handling, packaging, and labeling the wastes generated by their shop. The wastes are usually placed in a 55-gallon drum located either at a satellite accumulation site or at an accumulation site.

When wastes require disposal, the generator completes an AF Form 2005 and submits it to the Supply Section. Supply generates a DD Form 1348-1, using the information contained on the AF Form 2005. The DD Form 1348-1 is then approved by DEV, indicating funds are available for disposal. Finally, the generator submits the DD Form 1348-1 to DRMO who contacts a waste disposal contractor for pickup.

Waste oil and antifreeze are sold for 5 cents/gallon for recycling. All other waste materials are disposed of by a contractor at a cost to the base.

Any unknown wastes are analyzed before disposal. The BES has the responsibility to sample unknown hazardous wastes and other waste streams. Samples are sent to the Armstrong Laboratory, Analytical Services Division (AL/OEA) for analysis. Results are returned to the BES who notifies DEV.

Objectives

There were three objectives during the presurvey:

- to review applicable requirements in Resource Conservation and Recovery Act (RCRA) Subtitle C and New Mexico Hazardous Waste Regulations with base personnel,
- to review base records for all active waste streams to develop an up-to-date list of potential hazardous waste streams, and
- to visit each industrial shop identified as a potential hazardous waste stream generator to collect information for follow-on sampling for laboratory analysis.

There were three objectives during the sampling survey:

- to confirm with 49 CES/DEV and 49 Med Group/MGPB the identified list of potential hazardous waste streams to be characterized,
- to collect representative samples of the 25 active waste streams identified by BES during the 29-30 Apr 92 presurvey, and
- to instruct BES personnel on hazardous waste sampling procedures.

DISCUSSION

Method

During sampling, a representative sample was taken from each waste stream accumulation drum. Stratification of the waste due to age and/or varying physical properties was taken into account. All field sampling activities were in accordance with the Environmental Protection Agency (EPA) hazardous waste stream sampling criteria (2).

Drummed liquids were extracted by using the composite liquid waste sampler (COLIWASA). The COLIWASA is a 3-ft (0.91 meter) cylindrical glass tube containing a plug rod that is used to close the lower end of the glass tube. The COLIWASA permits representative sampling of multiphase wastes of a wide range of viscosity, corrosivity, volatility, and solids content. A separate disposable COLIWASA was used to collect a sample from each drum or tank. A total of 25 samples was collected from 25 active waste streams.

All samples were containerized in Eagle Picher level II certified 1-L and 40-mL. The sample bottles were cleaned by the vendor according to EPA quality assurance protocols in order to eliminate the container as a source of sample contamination.

All volatile sample bottles were completely filled with the sample prior to capping to provide for minimal headspace during sample shipment and storage. Filled sample containers were checked for air bubbles following sample collection, and the sample was retaken if minimal headspace was not achieved.

Each sample bottle was labeled with a unique laboratory sample number to avoid misidentification. The samples were shipped by Federal Express to the Armstrong Laboratory Sample Control Department in order to comply with the minimum sample holding times prior to analysis. Each sample was processed at the Armstrong Laboratory Sample Control Department for quality control. They were then dispatched to Raba-Kistner Consultants for analysis to insure a rapid turnaround on analysis results.

Survey Overview

The purpose of this survey was to identify and characterize hazardous waste streams for disposal according to the Resource Conservation and Recovery Act. The four characteristic tests for hazardous wastes are ignitability, corrosivity, reactivity, and toxicity characteristic leachate procedure (TCLP) according to Title 40, Code of Federal Regulations (CFR) 261, "Identification and Listing of Hazardous Waste (1)." Analyses required to determine if waste oil can meet recycle specifications under Title 40, CFR 266.40 are major components, flash point, total metals for energy recovery, and total organic halogens (1).

The overall sampling and analysis plan was coordinated with 49 CES/DEV and 49 Med Group/MGPB on the first day of the sampling survey to avoid duplication and/or incorrect analysis requests and analytical requirements. The first day of the survey was devoted to visiting all the waste streams, organizing the equipment and personnel for efficient daily deployment, and refining the sampling plan. A briefing was given on 23 Jun 92, prior to performing waste stream sampling, by Capt Hopwood and TSgt Bishop to the following Holloman AFB personnel:

SMSgt Gene Gordon	49 Med Grp/MGPB
Sgt Rebecca Pena	49 Med Grp/MGPB
SrA Sandra Hawkins	49 Med Grp/MGPB
Ms Valarie Stacey	49 CES/DEV
Mr Ronald Shotter	49 CES/DEV

Sampling Strategy

Sampling strategies were implemented at Holloman AFB in order to adequately and properly identify the characteristics of each waste stream. One representative sample was collected for each of the 25 active waste streams. Since none of the accumulation points visited during sampling maintain more than one drum for each active waste stream, multiple drum composite sampling was not necessary.

Only one waste stream was sampled for energy recovery since it was not multiphased. In accordance with 40 CFR 266.40, waste oil is generally analyzed for flash point, total metals, and total organic halogens (1). In New Mexico, waste oils are not regulated as hazardous waste unless laboratory analysis reveals they contain hazardous waste. A TCLP analysis was performed on all the other waste streams.

ANALYTICAL RESULTS

Analytical data obtained during the survey for the 25 active waste streams were formatted into a useful table according to the base's needs (Appendix B). The key to the alphabet notations and element symbols associated with the waste stream characterization table is presented in Appendix C. The regulatory maximum contaminant concentrations under the 40 CFR 261 TCLP criteria (1) are tabulated in Appendix D. Copies of the raw waste stream analytical results are presented in Appendix E.

There were 15 waste stream analytical results that exceeded the hazardous waste characteristics limits under 40 CFR 261 Subpart C, Characteristics of Hazardous Waste (1). The 15 waste streams are defined as hazardous waste streams and are listed along with the analytical results and designated EPA waste number.

HAZARDOUS WASTE STREAMS

<u>Waste Stream</u>	<u>Building Number</u>	<u>Analytical Results</u>	<u>EPA Waste Number</u>
6585 TG Metal Fab Waste Paint	1178	FP = <70°F	D001
83 ACS/LGTM Vehicle Maint Waste Paint	1266	FP = <80°F	D001
49 OG/MACFC Corr Control Waste Paint	282	FP = <60°F Chromium = 11 mg/L	D001 D007
49 OG/MACFC Struct Repair Waste Paint	282	FP = <60°F MEK= 162,000 mg/L	D001 D035
49 OG/MACFC Corr Control Rags, Waste Paint	282	Lead = 30 mg/L	D008
49 OG/MACFC Corr Control Chromium Trioxide	282	FP = 120°F Chromium = 310 mg/L MEK = 200 mg/L	D001 D007 D035
49 OG/MACFC Corr Control Rags, Chromium Trioxide	282	Chromium = 56 mg/L	D007
49 OG/MACFC Corr Control Rags, Alodine	282	Chromium = 85 mg/L	D007
49 CES/DEMPE Power Pro Waste Oil	54	Benzene = 17 mg/L	D018

<u>Waste Stream</u>	<u>Building Number</u>	<u>Analytical Results</u>	<u>EPA Waste Number</u>
49 CES/DEMCCA Paint Shop	55	FP = <60°F Lead = 21 mg/L	D001 D008
Paint Related, Waste		MEK = 1,900 mg/L	D035
49 TRANS/LGTM Allied Trades Waste Paint	195	FP = <60°F	D001
49 BBSG/DESC Corr Control Waste Paint	903	FP = <70°F Lead = 12 mg/L	D001 D008
Army Air Ops STEWS-AA-M-POB Waste Oil	1079	FP = <70°F	D001
Dyna Corp Land/Air Waste Paint	856	FP = <60°F Chromium = 12 mg/L	D001 D007
49 Supply/LGSDI Warehouse Aircraft Soap	12	pH = 13 ppm	D002

Legend:

°F: denotes degrees Fahrenheit
 MEK: denotes Methyl Ethyl Ketone
 FP: Flash Point
 <: denotes less than
 ppm: parts per million

CONCLUSIONS/RECOMMENDATIONS

Accumulation Sites

Each accumulation site and waste oil storage area has designated primary and alternate site managers. The Environmental Coordinator (DEV) is responsible for training accumulation site managers, who in-turn train shop personnel. The DEV should ensure that all accumulation site and waste oil storage area managers receive hazardous waste training before assuming their positions.

Used Paint Filters

The used paint filters at the 83d ACS Allied Trades, the 49th Civil Engineering Squadron Paint Shop, the 49th OG Corrosion Control, and the 49th Combat Support Group should be analyzed to determine whether or not they are hazardous. If they prove to be nonhazardous, the filters can be disposed of as municipal trash.

Absorbent Material

All shops using Speedy Dry should consider using an alternate absorbent material such as one that is siliceous based. This type of absorbent material reduces clean-up time, requires less absorbent material, and reduces quantity of hazardous waste generated.

Waste Storage Containers

Waste storage containers should be locked to prevent cross-contamination of wastes. Also, accumulation site managers should document the waste storage container contents in a control log. This log should contain: (1) a unique storage sequence number to identify which waste stream generated the waste (each waste stream should have a unique number), (2) date, type, and amount of waste put into the drum, (3) start and stop dates of filling each drum, and (4) name and signature of person placing the waste in the container. Also, a uniform system of documentation should be used by all site managers on base. This type of log can provide documented rationale for substituting user's knowledge for analytical results for waste disposal according to 40 CFR 262.11 (1).

Tracking of Disposal Drums

A system to centrally track disposal of drums is needed to prevent drums from being abandoned at accumulation points without adequate documentation. Based on observation, each unit on base has its own drums numerically stenciled sequentially and logged into their accumulation point log. This system is not centrally controlled and monitored. A number of bases have already implemented a system to numerically code all drums used in shops for waste collection, both hazardous and nonhazardous. The Civil Engineering Squadron at Andrews AFB, MD, has an excellent system of tracking drums. An empty drum is first assigned a control number that is recorded by one responsible individual through the use of a control log. The drum is then issued to the unit hazardous waste monitor for use. After the drum is full, it is transferred to the hazardous waste and used oil/fluid collection point for disposal. The control number on the drum is verified prior to waste acceptance. The critical element of this tracking system is accountability.

Disposal of Wooden Crates

The base should verify the types of wood preservative contained in the wooden crates used to hold drums at the accumulation sites. A convenient way to verify the type of wood preservative is to contact the manufacturer for material safety data sheets. If the crates contain pentachlorophenol (PCP), a TCLP analysis will be required under 40 CFR 261 for proper hazardous waste determination and proper disposal (1). The Department of Defense stopped using PCPs in the early 1980s. For more information about PCPs, contact the Chief, Ammunition Surveillance, at any U.S. Army ammunition depot; or the U.S. Army Defense Ammunition Center and School, Savanna, Illinois.

REFERENCES

1. Code of Federal Regulations, Title 40, Protection of Environment, Part 261, Identification and Listing of Hazardous Waste, Part 262, Standards Applicable to Generators of Hazardous Waste, and Part 266 Subpart E, Used Oil Burned for Energy Recovery, July 1991.
2. United States Environmental Protection Agency, Samplers and Sampling Procedures for Hazardous Waste Streams, EPA-600/2-80-018, January 1980.

APPENDIX A
Request Letter



DEPARTMENT OF THE AIR FORCE

48th MEDICAL GROUP (TAC)

HOLLOMAN AIR FORCE BASE, NM 88330-5300

REPLY TO
ATTN OF: SGPB

1 Apr 92

SUBJECT Request for Waste Analysis at Accumulation Points

TO HQ TAC/SGPB
ALOEB (Attn: Captain McMullen)
IN TURN

1. Request Armstrong Laboratory personnel assist in the collection and analysis of hazardous waste accumulation point samples on Holloman AFB. Attachments one and two list waste types and analytical parameters required by the Holloman AFB Waste Management Plan.
2. Holloman AFB maintains a RCRA permitted treatment, storage and disposal facility with nineteen accumulation points. Part B of the permit requires waste stream characterization and a written hazardous waste management plan. Accumulation point data (waste type) is not current, however, we are in the process of updating this information with an expected completion date of 15 April 1992. Waste characterization by Armstrong Laboratory is necessary to help us complete our base hazardous waste management plan update.
3. Please direct questions to SMS Gene Gordon or SrA Sandra Hawkins at DSN 867-7812.

Jesse W. Emerson
JESSE W. EMERSON, CAPT, USAF, BSC
Chief, Bioenvironmental Engineering

2ATCH
1-Annex U
2-Table U-2

1st Ind, SGPB

17 Apr 1992

TO: AL/OEB (Attn Capt McMullen)

In consideration of the facts that the BEE personnel at Holloman have never done any hazardous waste sampling, nor has the Holloman waste stream ever been characterized we support their request for Armstrong Laboratory assistance to get their program on line.

Stephen F. Strother
STEPHEN F. STROTHER, CMSgt, USAF
CEM, Bioenvironmental Engineering
Office of the Command Surgeon

Readiness is our Profession

ANNEX U

HOLLOMAN AIR FORCE BASE HAZARDOUS WASTE MANAGEMENT PLAN

WASTE ANALYSIS PARAMETERS

Table U-1 below identifies the waste types, the analytical parameters (ref. Table U-2 for the coding of the letters a, b, c, etc.), and the rationale for test selection.

Table U-1

<u>WASTE TYPE</u>	<u>ANALYTICAL PARAMETERS</u>	<u>TEST SELECTION RATIONALE</u>
Acetone	a,b,c,d,e,f,g, h,i,j,k,l,m	The waste is characteristically listed due to flash point. Tests will identify contaminants.
Carbon Remover	a,b,c,d,e,f,g, h,i,j,k,l,m	Carbon remover contains a mixture of of listed materials. Test will identify components and suitability for incineration.
Methyl Ethyl Ketone	a,b,c,d,e,f,g, h,i,j,k,l,m	Listed hazardous waste, also ignitable. Test will identify components and suitability for incineration.
Metrolux	a,b,c,d,e,h,k	The waste is characteristically listed due to heavy metals.
Paint Stripper (solvent type)	a,b,c,d,e,f,g, h,i,j,k,l,m	Waste is a mixture of listed solvents contaminated with paints. Tests will identify possible metal contaminants from paints.
Paint Remover	a,b,c,d,e,f,g, h,i,j,k,l,m	Waste is a caustic based stripper. Test will identify possible metal contaminants.
Paint Related Materials	a,b,c,d,e,f,g, h,i,j,k,l,m	Waste is a mixture of listed solvents. Tests will identify suitability for incineration.
PD-680, Type II k,l	a,b,c,d,f,g,h,	Waste may become hazardous if contaminated with high volatility fuels.

Table U-1

<u>WASTE TYPE</u>	<u>ANALYTICAL PARAMETERS</u>	<u>TEST SELECTION RATIONALE</u>
Penetrant (Zyglo)	a,b,c,d,f,g, h,i,m	Waste is a hydrocarbon material that is sometimes contaminated with Freon solvent.
Sodium Cyanide	a,b,c,d,e,h,k	Waste is spent reacting Sodium Cyanide solution from metal treating operations.
Toluene	a,b,c,d,e,f,g, h,i,j,k,l,m	The waste is characteristically listed due to flash point. Tests will identify contaminants.
Trichloroethane	a,b,c,d,h,i,m	Listed halogenated waste. Test will determine suitability for recycling/treatment.
Trichloro-flouroethane	a,b,c,d,h,i,m	Listed halogenated waste. Test will determine suitability for recycling/treatment.
Waste Explosives	b,g,i,c (Hg & Pb only)	Reactive by their very nature. Test will ensure suitability for detonation or burning.
Xylene	a,b,c,d,e,f,g, h,i,j,k,l,m	The waste is characteristically listed due to flash point. Tests will identify contaminants.

Table U-2

PARAMETERS, METHODS AND REFERENCES

<u>PARAMETER</u>	<u>TEST METHOD</u>	<u>REFERENCE</u>
a. Phases and Layers	Observation	n/a
b. Physical State	Observation	n/a
c. Total Solids	Gravimetric	ASTM D1889-78
d. Material Color	Observation	n/a
e. pH	Electrometric (Method 9040)	SW-846, Vol 3, USEPA
f. Flash point (deg. F)	Pensky-Martens Closed cup	ASTM D-93-70 or D-93-80
g. BTU Content (heating value)	Combustion	ASTM D240-87
h. Specific Weight	Gravimetric	n/a
i. Total Halogens	Method 9020	SW-846, Vol 3, USEPA
j. Total Sulfur	Barium Sulfate	Std. Methods for Examination of Water and Wastewater, 13 ED
k. Metals	AA	SW-846, Vol 3, USEPA
(Arsenic) ✓	(7060/7061)	
(Barium) ✓	(7080/7081)	
(Cadmium) ✓	(7130/7131)	
(Chromium) ✓	(7190/7191)	
(Lead) ✓	(7420/7421)	
(Mercury) ✓	(7470/7471)	
(Selenium) ✓	(7740/7741)	
(Silver) ✓	(7760/7761)	
l. Chromatograph	GC/MS (Method 8270)	SW-846, Vol 3, USEPA
m. Moisture Content	Gravimetric	n/a

APPENDIX B
Waste Stream Characterization Table

TABLE
WASTE STREAM CHARACTERIZATION: 23 JUN 92
HOLLOMAN AIR FORCE BASE NEW MEXICO

WASTE STREAM SHOP & BLDG	BASE SAMPLE NO.	ANALYSIS REQUESTED	MAJOR COMPONENTS X	F P (deg F)	R X (ppm)	CORR (pH)	T C L P METALS (mg/L)	T C L P VOLATILE (mg/L)	E R TOTAL METALS (mg/L)	T O X mg/L
6585 TG Metal Fabrication Bldg 1178 Cutting Oil	GT921251	TCLP MC HTW	NP	<200	NP	NP	NP	NP	NP	NP
6585 TG Metal Fabrication Bldg 1178 Waste Paint	GT921252	TCLP MC HTW	Organic Solvent = > 99	* < 70	NP	NP	NP	NP	NP	NP
83 ACS/LGTM Vehicle Maint Bldg 1266 Waste Oil	GT921253	TCLP MC HTW	PHC=95 Solids = < 5	> 200	NP	NP	NP	NP	NP	NP
83 ACS/LGTM Vehicle Maint Bldg 1266 Waste Paint	GT921254	TCLP MC HTW	Paint Solvent = > 99	* < 60	NP	NP	Cr=3.6 Others=ND	a=0.11 b=0.07 Others=ND	NP	NP
49 OGM/ACFC Corrosion Control Bldg 282 Waste Paint	GT921255	TCLP MC HTW	Organic Solvent = 79 Solids = 20	* < 60	NP	NP	ACr=11 Others=ND	a=0.1 Others=ND	NP	NP

NOTE 1: SYMBOLS

- Exceeds TCLP ignitable criteria: <140 deg Fahrenheit (F)
- == Exceeds ER ignitable criteria: <100 deg
- ⚡ Exceeds TCLP limits
- ⊙ Exceeds ER reactivity limits

NOTE 2: ACRONYMS

- TCLP-M: Toxicity Characteristic Leachate Procedure-Metals
- PHC: Petroleum Hydrocarbons
- TOX: Total Organic Halogens
- SV: Semi-Volatiles
- CORR: Corrosivity
- PP: Flash Point
- ND: None detected
- NP: Not performed
- ER: Energy recovery
- MC: Major Components
- Deg F: Degrees Fahrenheit
- PPM: Parts/ Million
- Mg/kg: Milligrams
- Mg/L: Milligrams per liter
- HTW: Hazardous Waste

TABLE
WASTE STREAM CHARACTERIZATION: 23 JUN 92
HOLLOMAN AIR FORCE BASE NEW MEXICO

WASTE STREAM SHOP & BLDG	BASE SAMPLE NO.	ANALYSIS REQUESTED	MAJOR COMPONENTS %	F P (deg F)	R X (ppm)	CORR (pH)	T C L P METALS (mg/L)	T C L P VOLATILE (mg/L)	E R TOTAL METALS (mg/L)	T O X mg/L
49 OGMA/CFC Structural Repair Bldg 282 Waste Pails	GT921256	TCLP MC HTW	Pellets Solvents=99	* < 60	50 Solids 25 Cymid	5.2	Cr=3.1 Others=ND	a=7.6 Hg=162K	NP	NP
49 OGMA/CFC Corrosion Control Bldg 282 Bags, Waste Pails	GT921257	TCLP-M	NP	NP	NP	NP	Cd=0.3 Pb=30 Others=ND	NP	NP	NP
49 OGMA/CFC Corrosion Control Bldg 282 Chromium Trioxide	GT921258	TCLP MC HTW	PEC=5.0 EZO=83.0 Sludge=10.0	*120	NP	NP	Cd=0.3 Pb=310 Others=ND	Hg=200 Others=ND	NP	NP
49 OGMA/CFC Corrosion Control Bldg 282 Bags, Flammable	GT921259	TCLP-M	NP	NP	NP	NP	Cd=0.1 Cr=1.8 Others=ND	NP	NP	NP
49 OGMA/CFC Corrosion Control Bldg 282 Bags, Chromium Trioxide	GT921260	TCLP-M	NP	NP	NP	NP	Cd=0.5 Pb=56 Others=ND	NP	NP	NP

NOTE 1: SYMBOLS

- Exceeds TCLP ignitable criteria: <140 deg Fahrenheit (°F)
- ~ Exceeds ER ignitable criteria: <100 deg
- # Exceeds TCLP limits
- Exceeds ER toxicity limits

NOTE 2: ACRONYMS

- TCLP-M: Toxicity Characteristic Leachate Procedure-Metals
- PEC: Petroleum Hydrocarbons
- TCLP: Toxicity Characteristic Leachate Procedure
- SV: Semi-Volatiles
- CORR: Corrosivity
- PP: Flash Point
- ND: None detected
- NP: Not performed
- ER: Emergency recovery
- MC: Major Components
- Deg F: Degrees Fahrenheit
- PPM: Parts/ Million
- Mg/Lg: Milligrams
- Mg/L: Milligrams per liter
- HTW: Hazardous Waste

TABLE
WASTE STREAM CHARACTERIZATION: 23 JUN 92
HOLLOMAN AIR FORCE BASE NEW MEXICO

WASTE STREAM SHOP & BLDG	BASE SAMPLE NO.	ANALYSIS REQUESTED	MAJOR COMPONENTS %	F P (deg F)	R X (ppm)	CORR (pH)	T C L P METALS (mg/L)	T C L P VOLATILE (mg/L)	E R TOTAL METALS (mg/L)	T O X mg/L
49 OGM/ACFC Corrosion Control Bldg 282 Rags, Alkaline	GT921261	TCLP-M	NP	NP	NP	NP	Cd=0.2 Pb=85 Others=ND	NP	NP	NP
49 CES/DEMER Power Production Bldg 54 Waste Oil	GT921262	TCLP MC HTW	EXO=96 Fats Solvent=4	>200	ND	7.2	ND	As=17 Others=ND	NP	NP
49 CES/DEMANCA Paint Shop Bldg 55 Paint Related Waste	GT921263	TCLP MC HTW	EXO=33 Organic Solvent=67	<60	ND	6.3	Pb=21 Others=ND	Pb=1900 Others=ND	NP	NP
49 Med Gp/SCER Medical X-Ray Bldg 15 X-Ray Film	GT921264	TCLP-M	NP	NP	NP	NP	ND	NP	NP	NP
49 TRANS/LGTM Alford Trades Bldg 195 Waste Paint	GT921265	TCLP MC HTW	Organic Solvent=78.4 EXO=2 Solids=20	<60	NP	NP	Pb=3.0 Others=ND	As=0.09 Others=ND	NP	NP

NOTE 1: SYMBOLS

- Exceeds TCLP ignitable criteria: <140 deg Fahrenheit (F)
- Exceeds ER ignitable criteria: <100 deg
- Exceeds TCLP toxic
- Exceeds ER toxicity limits

NOTE 2: ACRONYMS

- TCLP-M: Toxicity Characteristic Leachate Procedure-Metals
- PbC: Petroleum Hydrocarbons
- TOK: Total Organic Halogens
- SV: Sulfate Volatiles
- CORR: Corrosivity
- Flash Point
- ND: None detected
- NP: Not performed
- ER: Energy recovery
- MC: Major Components
- Deg F: Degrees Fahrenheit
- PPM: Parts/ Million
- Mg/Kg: Milligrams
- Mg/L: Milligrams per liter
- HTW: Hazardous Waste

TABLE
WASTE STREAM CHARACTERIZATION: 23 JUN 92
HOLLOMAN AIR FORCE BASE NEW MEXICO

WASTE STREAM SHOP & BLDG	BASE SAMPLE NO.	ANALYSIS REQUESTED	MAJOR COMPONENTS %	F P (deg F)	R X (ppm)	CORR (pH)	T C L P METALS (mg/L)	T C L P VOLATILE (mg/L)	E R TOTAL METALS (mg/L)	T O X (mg/L)
49 SGRSCVP Photo Lab Bldg 332 Waste floor	GT921266	TCLP-M SV HTW	H2O=14 % Solvents=14 %	>200	ND	6.8	Se=0.2 Ag=0.6 Other=ND	ND	NP	NP
49 SGRSCVP Photo Lab Bldg 332 Waste Film	GT921275	TCLP-M	NP	NP	ND	6.7	ND	NP	NP	NP
49 EBSG/DESC Corrosion Control Bldg 903 Waste Paint	GT921267	TCLP MC HTW	Organic Solvent=69 Solids=30	* <70	NP	NP	#Pb=12 Other=ND	ND	NP	NP
Army Air Operations STEW-AM-POB Bldg 1079 Waste Oil	GT921268	TCLP MC HTW	Organic Solvent=49 H2O=40 Glycol=9 Solids=3	* <70	NP	NP	NP	NP	NP	NP
Dyna Corp Land/Air Bldg 856 Waste Paint	GT921269	TCLP MC HTW	Solvent=79 Solids=20	* <60	NP	NP	#Cr=12 Other=ND	ND	NP	NP

NOTE 1: SYMBOLS

- * Exceeds TCLP ignitable criteria: <140 deg Fahrenheit (F)
- = Exceeds ER ignitable criteria: <100 deg
- # Exceeds TCLP flammable
- Exceeds ER reactivity limits

NOTE 2: ACRONYMS

- TCLP-M: Toxicity Characteristic Leachate Procedure-Metals
- PHE: Petroleum Hydrocarbons
- TOX: Total Organic Halogens
- SV: Solvent Volatiles
- CORR: Corrosivity

- FF: Flash Point
- ND: None detected
- NP: Not performed
- ER: Energy recovery
- MC: Major Components
- Dag F: Degress Fahrenheit
- PPM: Parts/ Million
- Mg/L: Milligrams per liter
- HTW: Hazardous Waste

TABLE
WASTE STREAM CHARACTERIZATION: 23 JUN 92
HOLLOMAN AIR FORCE BASE NEW MEXICO

WASTE STREAM SHOP & BLDG	BASE SAMPLE NO.	ANALYSIS REQUESTED	MAJOR COMPONENTS %	F P (deg F)	R X (ppm)	CORR (pH)	T C L P METALS (mg/L)	T C L P VOLATILE (mg/L)	E R TOTAL METALS (mg/L)	T O X (mg/L)
Dynas Corp Lead/Air Bldg 856 Rags, Pelts	GT921270	TCLP-M	NP	NP	NP	NP	Pb=0.6 Others=ND	NP	NP	NP
Dynas Corp Lead/Air Bldg 844 White Oil	GT921271	ER MC HTW	PHC > 99	> 200	NP	6.4	NP	NP	As=0 Cd=0.9 Pb=27 Cr=2.6	2000
Dynas Corp Lead/Air Bldg 841 Ferrous Ferrous Oxide	GT921272	TCLP MC HTW	EXO=73 Solvents=27	> 200	ND	5.6	ND	NP	NP	NP
Dynas Corp Lead/Air Bldg 841 Rags, Solvents	GT921273	TCLP-M	NP	NP	NP	NP	ND	NP	NP	NP
49 SUP/LGSDX Warehouse Bldg 12 Aircraft Soap	GT921274	TCLP MC HTW	NP	> 200	ND	#13.0	ND	ND	NP	NP

NOTE 1: SYMBOLS

- Exceeds TCLP ignitable criteria: <140 deg Fahrenheit (F)
- == Exceeds ER ignitable criteria: <100 deg
- # Exceeds TCLP limits
- ⊙ Exceeds ER reactivity limits

NOTE 2: ACRONYMS

- TCLP-M: Toxicity Characteristic Leachate Procedure-Metals
- PHC: Petroleum Hydrocarbons
- TOX: Total Organic Halogens
- SV: Semi-Volatiles
- COMB: Corrosivity
- PP: Flash Point
- ND: Not Detected
- NP: Not performed
- ER: Energy recovery
- MC: Major Components
- Deg F: Degrees Fahrenheit
- PPM: Parts/ Million
- Mg/kg: Milligrams
- Mg/L: Milligrams per liter
- HTW: Hazardous Trade Waste

APPENDIX C
Key to Alphabet Notations and Element Symbols

**KEY TO ALPHABET NOTATIONS AND ELEMENT SYMBOLS
IN WASTE STREAM TABLES**

ALPHABET NOTATIONS:

<u>Alphabet</u>	<u>Analyte Name</u>	<u>Limits of Detection (mg/Kg)</u>
a	Benzene	8.0
b	Carbon Tetrachloride	7.5
c	Chlorobenzene	6.5
d	Chloroform	9.0
e	1,2-Dichloroethane	12.0
f	1,1-Dichloroethylene	6.0
g	Methyl Ethyl Ketone	19.0
h	Tetrachloroethylene	7.5
i	Trichloroethylene	6.5
j	Vinyl Chloride	8.5
k	o - Cresol	200.0
l	m - Cresol	200.0
m	p - Cresol	200.0
n	1,4 - Dichlorobenzene	7.5
o	2,4 - Dinitrotoluene	0.13
p	Hexachlorobenzene	0.13
q	Hexachloro-1-3-butadiene	0.5
r	Hexachloroethane	3.0
s	Nitrobenzene	2.0
t	Pentachlorophenol	100.0
u	Pyridine	5.0
v	2,4,5-Trichlorophenol	400.0
w	2,4,6-Trichlorophenol	2.0

Denotes TCLP Volatiles/Semivolatiles and Pesticides/Herbicides

ELEMENT SYMBOLS:

<u>Symbol</u>	<u>Metal Analyte</u>
As	Arsenic
Ba	Barium
Cr	Chromium
Cd	Cadmium
Pb	Lead
Se	Selenium
Ag	Silver
Hg	Mercury

APPENDIX D
Maximum Contaminant Concentrations

**MAXIMUM CONTAMINANT CONCENTRATIONS
FOR TOXICITY CHARACTERISTIC WASTES**

Waste Stream Constituent	Concentration (milligrams/liter)	EPA Hazardous Waste Number
Arsenic	5.0	D004
Barium	100.0	D005
Benzene	0.5	D018
Cadmium	1.0	D006
Carbon Tetrachloride	0.5	D019
Chlorodane	0.03	D020
Chlorobenzene	100.0	D021
Chloroform	6.0	D022
Chromium	5.0	D007
Cresol	200.0	D026
m - Cresol	200.0	D024
o - Cresol	200.0	D023
p - Cresol	200.0	D025
2,4-D	10.0	D016
1,4 - Dichlorobenzene	7.5	D027
1,2-Dichloroethane	0.5	D028
1,1-Dichloroethylene	0.7	D029
2,4-Dinitrotoluene	0.13	D030
Endrin	0.02	D012
Heptachlor	0.008	D031
Hexachlorobenzene	0.13	D032
Hexachlorobutadiene	0.5	D033
Hexachloroethane	3.0	D034
Lead	5.0	D008
Lindane	0.4	D013
Mercury	0.2	D009
Methoxychlor	10.0	D014
Methyl Ethyl Ketone	200.0	D035
Nitrobenzene	2.0	D036
Pentachlorophenol	100.0	D035
Pyridine	5.0	D038
Selenium	1.0	D010
Silver	5.0	D011
2,4,5-TP (Silvex)	1.0	D017
Tetrachloroethylene	0.7	D039
Toxaphene	0.5	D015
Trichloroethylene	0.5	D040
2,4,5-Trichlorophenol	400.0	D041
2,4,6-Trichlorophenol	2.0	D042
Vinyl Chloride	0.2	D043

APPENDIX E
Report of Analysis (Raw Laboratory Data)

AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921251 OEHL SAMPLE NO: 92037988
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Major Components	See comment.		
Benzene	QNS		
Carbon tetrachloride	QNS		
Chlorobenzene	QNS		
Chloroform	QNS		
m-Cresol	QNS		
2-Methylphenol	QNS		
4-Methylphenol	QNS		
1,4-Dichlorobenzene	QNS		
1,2-Dichloroethane	QNS		
1,1-Dichloroethene	QNS		
2,4-Dinitrotoluene	QNS		
Hexachlorobenzene	QNS		
Hexachlorobutadiene	QNS		
Hexachloroethane	QNS		
Methyl ethyl ketone	QNS		
Nitrobenzene	QNS		
Pentachlorophenol	QNS		
Pyridine	QNS		
Vinyl chloride	QNS		
Trichloroethylene	QNS		
Tetrachloroethylene	QNS		
2,4,5-Trichlorophenol	QNS		
2,4,6-Trichlorophenol	QNS		
Arsenic	QNS		
Barium	QNS		

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REPORT OF ANALYSIS

BASE SAMPLE NO: GT921251 OEHL SAMPLE NO: 92037988
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Cadmium	QNS		
Chromium	QNS		
Lead	QNS		
Mercury	QNS		
Selenium	QNS		
Silver	QNS		
Flash Point (closed cup)	>200	degrees F	EPA 1010
Cyanide (total)	QNS		
Sulfide	QNS		
Hydrogen ion (pH)	QNS		
Corrosivity	QNS		

QNS : Quantity not sufficient for analysis.

Comments:

SAMPLE IS (TOP 40%) >99% PETROLEUM HYDROCARBONS (SIMILAR TO OIL).
(BOTTOM 60%) 94% WATER, 5% PETROLEUM HYDROCARBONS (SIMILAR TO OIL)
AND <1% SOLIDS. QUANTITY NOT SUFFICIENT FOR TCLP.

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AIR FORCE
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REPORT OF ANALYSIS

BASE SAMPLE NO: GT921252 OEHL SAMPLE NO: 92037989
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Major Components	See comment.		
Benzene	NP		
Carbon tetrachloride	NP		
Chlorobenzene	NP		
Chloroform	NP		
m-Cresol	NP		
2-Methylphenol	NP		
4-Methylphenol	NP		
1,4-Dichlorobenzene	NP		
1,2-Dichloroethane	NP		
1,1-Dichloroethene	NP		
2,4-Dinitrotoluene	NP		
Hexachlorobenzene	NP		
Hexachlorobutadiene	NP		
Hexachloroethane	NP		
Methyl ethyl ketone	NP		
Nitrobenzene	NP		
Pentachlorophenol	NP		
Pyridine	NP		
Vinyl chloride	NP		
Trichloroethylene	NP		
Tetrachloroethylene	NP		
2,4,5-Trichlorophenol	NP		
2,4,6-Trichlorophenol	NP		
Arsenic	NP		
Barium	NP		

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REPORT OF ANALYSIS

BASE SAMPLE NO: GT921252 DEHL SAMPLE NO: 92037989
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Cadmium	NP		
Chromium	NP		
Lead	NP		
Mercury	NP		
Selenium	NP		
Silver	NP		
Corrosivity	NP		
Hydrogen ion (pH)	NP		
Cyanide (total)	NP		
Sulfide	NP		
Flash Point (closed cup)	<70	degrees F	EPA 1010

NP : Test Not Performed

Comments:

SAMPLE IS >99% ORGANIC SOLVENT (SIMILAR TO AN ALKYL ACETATE.
SAMPLE CONSISTED OF ORGANIC LIQUID - THEREFORE TCLP NOT APPLICABLE.
SOLID PHASE QUANTITY INSUFFICIENT FOR EXTRACTION.
< - Signifies none detected and the detection limits.

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AIR FORCE
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REPORT OF ANALYSIS

BASE SAMPLE NO: GT921253 OEHL SAMPLE NO: 92037990
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Major Components	See comment.		
Benzene	QNS		
Carbon tetrachloride	QNS		
Chlorobenzene	QNS		
Chloroform	QNS		
m-Cresol	QNS		
2-Methylphenol	QNS		
4-Methylphenol	QNS		
1,4-Dichlorobenzene	QNS		
1,2-Dichloroethane	QNS		
1,1-Dichloroethene	QNS		
2,4-Dinitrotoluene	QNS		
Hexachlorobenzene	QNS		
Hexachlorobutadiene	QNS		
Hexachloroethane	QNS		
Methyl ethyl ketone	QNS		
Nitrobenzene	QNS		
Pentachlorophenol	QNS		
Pyridine	QNS		
Vinyl chloride	QNS		
Trichloroethylene	QNS		
Tetrachloroethylene	QNS		
2,4,5-Trichlorophenol	QNS		
2,4,6-Trichlorophenol	QNS		
Arsenic	QNS		
Barium	QNS		

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921253 OEHL SAMPLE NO: 92037990
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Cadmium	QNS		
Chromium	QNS		
Lead	QNS		
Mercury	QNS		
Selenium	QNS		
Silver	QNS		
Flash Point (closed cup)	>200	degrees F	EPA 1010
Corrosivity	QNS		
Hydrogen ion (pH)	QNS		
Cyanide (total)	QNS		
Sulfide	QNS		

QNS : Quantity not sufficient for analysis.

Comments:

SAMPLE IS 95% PETROLEUM HYDROCARBONS (SIMILAR TO OIL) AND <5% SOLIDS.
SOLIDS - QUANTITY NOT SUFFICIENT FOR TCLP.

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921254 OEHL SAMPLE NO: 92037991
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Corrosivity	NP		
Major Components	See comment.		
m-Cresol	See comment.		
Benzene	0.11	mg/L	1311/8240
Carbon tetrachloride	<0.05	mg/L	1311/8240
Chlorobenzene	<10	mg/L	1311/8240
Chloroform	<0.5	mg/L	1311/8240
2-Methylphenol	See comment.		
4-Methylphenol	See comment.		
1,4-Dichlorobenzene	<0.7	mg/L	1311/8270
1,2-Dichloroethane	<0.05	mg/L	1311/8240
1,1-Dichloroethene	<0.05	mg/L	1311/8240
2,4-Dinitrotoluene	<0.01	mg/L	1311/8270
Hexachlorobenzene	<0.01	mg/L	1311/8270
Hexachlorobutadiene	<0.05	mg/L	1311/8270
Hexachloroethane	<0.3	mg/L	1311/8270
Methyl ethyl ketone	<20	mg/L	1311/8240
Nitrobenzene	<0.2	mg/L	1311/8270
Pentachlorophenol	<10	mg/L	1311/8270
Pyridine	<0.5	mg/L	1311/8270
Trichloroethylene	<0.05	mg/L	1311/8240
Tetrachloroethylene	0.07	mg/L	1311/8240
2,4,5-Trichlorophenol	<40	mg/L	1311/8270
2,4,6-Trichlorophenol	<0.2	mg/L	1311/8270
Barium	<10	mg/L	1311/6010
Cadmium	<0.1	mg/L	1311/6010

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AIR FORCE
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BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921254 OEHL SAMPLE NO: 92037991
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Chromium	3.6	mg/L	1311/6010
Lead	<0.5	mg/L	1311/6010
Silver	<0.5	mg/L	1311/6010
Flash Point (closed cup)	<80	degrees F	EPA 1010
Hydrogen ion (pH)	NP		
Cyanide (total)	NP		
Sulfide	NP		
Arsenic	<0.5	mg/L	1311/7000
Mercury	<0.02	mg/L	1311/7000
Selenium	<0.1	mg/L	1311/7000
Vinyl chloride	<0.1	mg/L	1311/8240

NP : Test Not Performed

Comments:

SAMPLE IS >99% PAINT SOLVENT (SIMILAR TO A MIXTURE OF ALKYL KETONES/ACETATES). CRESOL TOTAL = <20 mg/L.
PREPARATION FOR METALS IS 3010, VOLATILES 5030 AND SEMI VOLATILES 3510.

< - Signifies none detected and the detection limits.

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921255 OEHL SAMPLE NO: 92037992
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Corrosivity	NP		
Major Components	See comment.		
m-Cresol	See comment.		
Benzene	0.1	mg/L	1311/8240
Carbon tetrachloride	<0.05	mg/L	1311/8240
Chlorobenzene	<10	mg/L	1311/8240
Chloroform	<0.5	mg/L	1311/8240
2-Methylphenol	See comment.		
4-Methylphenol	See comment.		
1,4-Dichlorobenzene	<0.7	mg/L	1311/8270
1,2-Dichloroethane	<0.05	mg/L	1311/8240
1,1-Dichloroethene	<0.05	mg/L	1311/8240
2,4-Dinitrotoluene	<0.4	mg/L	1311/8270
Hexachlorobenzene	<0.4	mg/L	1311/8270
Hexachlorobutadiene	<0.4	mg/L	1311/8270
Hexachloroethane	<0.4	mg/L	1311/8270
Methyl ethyl ketone	<20	mg/L	1311/8240
Pentachlorophenol	<10	mg/L	1311/8270
Pyridine	<0.5	mg/L	1311/8270
Vinyl chloride	<0.02	mg/L	1311/8240
2,4,5-Trichlorophenol	<40	mg/L	1311/8270
2,4,6-Trichlorophenol	<0.4	mg/L	1311/8270
Barium	<10	mg/L	1311/6010
Cadmium	<0.1	mg/L	1311/6010
Chromium	11	mg/L	1311/6010
Lead	<0.5	mg/L	1311/6010

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AIR FORCE
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BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921255 OEHL SAMPLE NO: 92037992
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Mercury	<0.02	mg/L	1311/7000
Silver	<0.5	mg/L	1311/6010
Flash Point (closed cup)	<60	degrees F	EPA 1010
Hydrogen ion (pH)	NP		
Cyanide (total)	NP		
Sulfide	NP		
Arsenic	<0.5	mg/L	1311/7000
Selenium	<0.2	mg/L	1311/7000
Nitrobenzene	<0.4	mg/L	1311/8270
Trichloroethylene	<0.05	mg/L	1311/8240
Tetrachloroethylene	<0.05	mg/L	1311/8240

NP : Test Not Performed

Comments:

SAMPLE IS (TOP LAYER 80%) 99% ORGANIC SOLVENT (SIMILAR TO AN ALKYL KETONE) ADD 1% WATER. (BOTTOM LAYER 20%) >99% SOLIDS.
TOTAL CRESOL = <20 mg/L.
THE PRACTICAL QUANTITATION LIMIT WAS ELEVATED FOR 2,4-DINITROTOLUENE AND HEXACHLOROBENZENE DUE TO DILUTION/MATRIX INTERFERENCES.
PREPARATION FOR METALS IS 3010, VOLATILES 5030 AND SEMI VOLATILES IS 3510.
< - Signifies none detected and the detection limits.

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921256 OEHL SAMPLE NO: 92037993
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Corrosivity	SINC		
Major Components	See comment.		
m-Cresol	See comment.		
Benzene	7.6	mg/L	1311/8240
Carbon tetrachloride	<2.5	mg/L	1311/8240
Chlorobenzene	<10	mg/L	1311/8240
Chloroform	<2.5	mg/L	1311/8240
2-Methylphenol	See comment.		
4-Methylphenol	See comment.		
1,4-Dichlorobenzene	<0.7	mg/L	1311/8270
1,2-Dichloroethane	<2.5	mg/L	1311/8240
1,1-Dichloroethene	<2.5	mg/L	1311/8240
2,4-Dinitrotoluene	<0.01	mg/L	1311/8270
Hexachlorobenzene	<0.01	mg/L	1311/8270
Hexachlorobutadiene	<0.05	mg/L	1311/8270
Hexachloroethane	<0.3	mg/L	1311/8270
Methyl ethyl ketone	162,000	mg/L	1311/8240
Nitrobenzene	<0.2	mg/L	1311/8270
Pentachlorophenol	<10	mg/L	1311/8270
Pyridine	<0.5	mg/L	1311/8270
Vinyl chloride	<5.0	mg/L	1311/8240
Trichloroethylene	<2.5	mg/L	1311/8240
Tetrachloroethylene	<2.5	mg/L	1311/8240
2,4,5-Trichlorophenol	<40	mg/L	1311/8270
2,4,6-Trichlorophenol	<0.2	mg/L	1311/8270
Arsenic	<0.5	mg/L	1311/7000

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921256 OEHL SAMPLE NO: 92037993
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Barium	<10	mg/L	1311/6010
Cadmium	<0.1	mg/L	1311/6010
Chromium	3.1	mg/L	1311/6010
Lead	<0.5	mg/L	1311/6010
Mercury	<0.02	mg/L	1311/7000
Selenium	<0.1	mg/L	1311/7000
Silver	<0.5	mg/L	1311/6010
Flash Point (closed cup)	<60	degrees F	EPA 1010
Hydrogen ion (pH)	5.2		EPA 9040
Sulfide	50	ppm	EPA 9030
Cyanide (total)	25	ppm	EPA 9010

SINC : Sample is not corrosive.

Comments:

SAMPLE IS 99% PAINT SOLVENT MIXTURE (CONTAINING ALKYL KETONES, TOLUENE, ETHYL BENZENE, ALKYL ACETATE, SUBSTITUTED ALKANES) AND 1% WATER. CRESOL TOTAL = <20 mg/L.

THE PRACTICAL QUANTITATION LIMIT WAS ELEVATED FOR CARBON TETRACHLORIDE, 1,2-DICHLOROETHANE, 1,1-DICHLOROETHYLENE, TETRACHLOROETHYLENE, TRICHLOROETHYLENE AND VINYL CHLORIDE DUE TO DILUTION/MATRIX INTERFERENCES.

PREPARATION FOR METALS IS 3010, SEMI VOLATILES IS 3510 AND VOLATILES IS 5030.

< - Signifies none detected and the detection limits.

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTURATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921257 OEHL SAMPLE NU: 92037994
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920731
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Arsenic	<0.5	mg/L	3010/6010
Silver	<0.5	mg/L	3010/6010
Barium	<10	mg/L	3010/6010
Cadmium	0.3	mg/L	3010/6010
Chromium	<0.5	mg/L	3010/6010
Lead	30	mg/L	3010/6010
Selenium	<0.1	mg/L	3010/6010
Mercury	<0.02	mg/L	3010/6010

Comments:

< - Signifies none detected and the detection limits.

Analyzed by: Raba-Kistner Consultants, Inc.

Reviewed by: 

Michael J. Wentland, MSgt, USAF
NCOIC Technical Operations Branch

TO:

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BROOKS AFB, TX 78235-5000

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921258 OEHL SAMPLE NO: 92037995
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
m-Cresol	See comment.		
Major Components	See comment.		
Benzene	<0.05	mg/L	1311/8240
Carbon tetrachloride	<0.05	mg/L	1311/8240
Chlorobenzene	<10	mg/L	1311/8240
Chloroform	<0.5	mg/L	1311/8240
2-Methylphenol	See comment.		
4-Methylphenol	See comment.		
1,4-Dichlorobenzene	<0.7	mg/L	1311/8270
1,1-Dichloroethene	<0.05	mg/L	1311/8240
1,2-Dichloroethane	<0.05	mg/L	1311/8240
2,4-Dinitrotoluene	<0.05	mg/L	1311/8270
Hexachlorobenzene	<0.05	mg/L	1311/8270
Hexachlorobutadiene	<0.05	mg/L	1311/8270
Hexachloroethane	<0.5	mg/L	1311/8270
Nitrobenzene	<0.2	mg/L	1311/8270
Pentachlorophenol	<10	mg/L	1311/8270
Pyridine	<0.5	mg/L	1311/8270
Methyl ethyl ketone	200	mg/L	1311/8240
Vinyl chloride	<0.02	mg/L	1311/8240
Trichloroethylene	<0.05	mg/L	1311/8240
Tetrachloroethylene	<0.05	mg/L	1311/8240
2,4,5-Trichlorophenol	<40	mg/L	1311/8270
2,4,6-Trichlorophenol	<0.2	mg/L	1311/8270
Barium	<10	mg/L	1311/6010
Cadmium	0.3	mg/L	1311/6010

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BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921258 OEHL SAMPLE NO: 92037995
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Chromium	310	mg/L	1311/6010
Lead	<0.5	mg/L	1311/6010
Silver	<0.5	mg/L	1311/6010
Flash Point (closed cup)	120	degrees F	EPA 1010
Mercury	<0.02	mg/L	1311/7000
Corrosivity	NP		
Hydrogen ion (pH)	NP		
Cyanide (total)	NP		
Sulfide	NP		
Arsenic	<0.5	mg/L	1311/7000
Selenium	<0.2	mg/L	1311/7000

NP : Test Not Performed

Comments:

SAMPLE IS (TOP 5%) 94% PETROLEUM HYDROCARBONS (SIMILAR TO DIESEL) AND 6% WATER. (BOTTOM LAYER 95%) 87% WATER, 10% SLUDGE AND 3% PETROLEUM HYDROCARBONS (SIMILAR TO DIESEL).

RESULT FOR TOTAL CHROMIUM = 6400 mg/L 3010/6010.

PREPARATION FOR METALS IS 3010, VOLATILES IS 5030 AND SEMI VOLATILE IS 3510.

< - Signifies none detected and the detection limits.

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REPORT OF ANALYSIS

BASE SAMPLE NO: GT921259 OEHL SAMPLE NO: 92037996
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920731
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Arsenic	<0.5	mg/L	3010/6010
Barium	<10	mg/L	3010/6010
Cadmium	0.1	mg/L	3010/6010
Chromium	1.8	mg/L	3010/6010
Lead	<0.5	mg/L	3010/6010
Mercury	<0.02	mg/L	3010/6010
Selenium	<0.1	mg/L	3010/6010
Silver	<0.5	mg/L	3010/6010

Comments:

< - Signifies none detected and the detection limits.

Analyzed by: Raba-Kistner Consultants, Inc.

Reviewed by: 

Michael J. Wantland, MSgt, USAF
NCOIC Technical Operations Branch

TO:

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REPORT OF ANALYSIS

BASE SAMPLE NO: GT921260 OEHL SAMPLE NO: 92037997
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920731
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Arsenic	<0.5	mg/L	3010/6010
Barium	<10	mg/L	3010/6010
Cadmium	0.5	mg/L	3010/6010
Chromium	56	mg/L	3010/6010
Lead	<0.5	mg/L	3010/6010
Mercury	<0.02	mg/L	3010/6010
Selenium	<0.1	mg/L	3010/6010
Silver	<0.5	mg/L	3010/6010

Comments:

< - Signifies none detected and the detection limits.

Analyzed by: Raba-Kistner Consultants, Inc.

Reviewed by: 

Michael J. Wantland, MSgt, USAF
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REPORT OF ANALYSIS

BASE SAMPLE NO: GT921261 OEHL SAMPLE NO: 92037998
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920731
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Arsenic	<0.5	mg/L	3010/6010
Barium	<10	mg/L	3010/6010
Cadmium	0.2	mg/L	3010/6010
Chromium	85	mg/L	3010/6010
Lead	<0.5	mg/L	3010/6010
Mercury	<0.02	mg/L	3010/6010
Selenium	<0.1	mg/L	3010/6010
Silver	<0.5	mg/L	3010/6010

Comments:

< - Signifies none detected and the detection limits.

Analyzed by: Raba-Kistner Consultants, Inc.

Reviewed by:


Michael J. Wantland, MSgt, USAF
NCOIC Technical Operations Branch

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REPORT OF ANALYSIS

BASE SAMPLE NO: GT921262 OEHL SAMPLE NO: 92037999
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920803
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

Test	Results	Units	Method
Major Components	See comment.		
Benzene	17	mg/L	EPA 8240
m-Cresol	See comment.		
2-Methylphenol	See comment.		
4-Methylphenol	See comment.		
Chlorobenzene	<10	mg/L	EPA 8240
Carbon tetrachloride	<0.05	mg/L	EPA 8240
Chloroform	<0.5	mg/L	EPA 8240
1,4-Dichlorobenzene	<0.7	mg/L	EPA 8270
1,2-Dichloroethane	<0.05	mg/L	EPA 8240
1,1-Dichloroethene	<0.05	mg/L	EPA 8240
2,4-Dinitrotoluene	<0.1	mg/L	EPA 8270
Hexachlorobenzene	<0.1	mg/L	EPA 8270
Hexachlorobutadiene	<0.1	mg/L	EPA 8270
Hexachloroethane	<0.3	mg/L	EPA 8270
Methyl ethyl ketone	<20	mg/L	EPA 8240
Nitrobenzene	<0.2	mg/L	EPA 8270
Pentachlorophenol	<10	mg/L	EPA 8270
Pyridine	<0.5	mg/L	EPA 8270
Vinyl chloride	<0.1	mg/L	EPA 8240
Trichloroethylene	<0.05	mg/L	EPA 8240
Tetrachloroethylene	<0.05	mg/L	EPA 8240
2,4,5-Trichlorophenol	<40	mg/L	EPA 8270
2,4,6-Trichlorophenol	<0.2	mg/L	EPA 8270
Arsenic	<0.5	mg/L	3010/6010
Barium	<10	mg/L	3010/6010

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
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REPORT OF ANALYSIS

BASE SAMPLE NO: GT921262 OEHL SAMPLE NO: 92037999
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920803
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Cadmium	<0.1	mg/L	3010/6010
Chromium	<0.5	mg/L	3010/6010
Lead	<0.5	mg/L	3010/6010
Mercury	<0.02	mg/L	3010/6010
Selenium	<0.1	mg/L	3010/6010
Silver	<0.5	mg/L	3010/6010
Flash Point (closed cup)	>200	degrees F	EPA 1010
Corrosivity	SINC		
Hydrogen ion (pH)	7.0		EPA 9040
Cyanide (total)	<25	ppm	EPA 9010
Sulfide	<50	ppm	EPA 9030

SINC : Sample is not corrosive.

Comments:

SAMPLE IS 96% WATER AND 4% PAINT SOLVENT MIXTURE (SIMILAR TO ALKYL KETONES AND ACETATES, GASOLINE AND LACQUER THINNER).
All test methods conform to SW-846.
TOTAL CRESOL = <20 mg/L EPA 8270.
< - Signifies none detected and the detection limits.

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REPORT OF ANALYSIS

BASE SAMPLE NO: GT921263 OEHL SAMPLE NO: 92038000
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920804
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Major Components	See comment.		
m-Cresol	See comment.		
Benzene	<2.5	mq/L	EPA 8240
Carbon tetrachloride	<2.5	mq/L	EPA 8240
Chlorobenzene	<10	mq/L	EPA 8240
Chloroform	<2.5	mq/L	EPA 8240
2-Methylphenol	See comment.		
4-Methylphenol	See comment.		
1,4-Dichlorobenzene	<0.7	mq/L	EPA 8270
1,2-Dichloroethane	<2.5	mq/L	EPA 8240
1,1-Dichloroethane	<2.5	mq/L	EPA 8240
2,4-Dinitrotoluene	<0.1	mq/L	EPA 8270
Hexachlorobenzene	<0.1	mq/L	EPA 8270
Hexachlorobutadiene	<0.1	mq/L	EPA 8270
Hexachloroethane	<0.3	mq/L	EPA 8270
Methyl ethyl ketone	1,900	mq/L	EPA 8240
Nitrobenzene	<0.2	mq/L	EPA 8270
Pentachlorophenol	<10	mq/L	EPA 8270
Pyridine	<0.5	mq/L	EPA 8270
Vinyl chloride	<5.0	mq/L	EPA 8240
Trichloroethylene	<2.5	mq/L	EPA 8240
Tetrachloroethylene	<2.5	mq/L	EPA 8240
2,4,6-Trichlorophenol	<0.2	mq/L	EPA 8270
Arsenic	<0.5	mq/L	3010/6010
Barium	<10	mq/L	3010/6010
Cadmium	<0.1	mq/L	3010/6010

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921263 OEHL SAMPLE NO: 92038000
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920804
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
2,4,5-Trichlorophenol	<40	mq/L	EPA 8270
Chromium	<0.5	mq/L	3010/6010
Lead	21	mq/L	3010/6010
Mercury	<0.02	mq/L	3010/6010
Selenium	<0.1	mq/L	3010/6010
Silver	<0.5	mq/L	3010/6010
Flash Point (closed cup)	<60	degrees F	EPA 1010
Corrosivity	SINC		
Hydrogen ion (pH)	6.3		EPA 9040
Cyanide (total)	<25	ppm	EPA 9010
Sulfide	<50	ppm	EPA 9030

SINC : Sample is not corrosive.

Comments:

SAMPLE IS 67% ORGANIC SOLVENT (SIMILAR TO AN ALKYL ACETATE) AND 33% WATER. TOTAL CRESOL = <20 mq/L EPA 8270.
THE PRACTICAL QUANTITATION LIMIT WAS ELEVATED FOR BENZENE, CARBON TETRACHLORIDE, 1,2-DICHLOROETHANE, 1,1-DICHLOROETHYLENE, TETRACHLOROETHYLENE, TRICHLOROETHYLENE AND VINYL CHLORIDE DUE TO DILUTION/MATRIX INTERFERENCES. All test methods conform to SW-846.
< - Signifies none detected and the detection limits.

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OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921264 OEHL SAMPLE NO: 92038001
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920731
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Arsenic	<0.5	mg/L	3010/6010
Barium	<10	mg/L	3010/6010
Cadmium	<0.1	mg/L	3010/6010
Lead	<0.5	mg/L	3010/6010
Chromium	<0.5	mg/L	3010/6010
Mercury	<0.02	mg/L	3010/6010
Selenium	<0.1	mg/L	3010/6010
Silver	<0.5	mg/L	3010/6010

Comments:

< - Signifies none detected and the detection limits.

Analyzed by: Rabe-Kistner Consultants, Inc.

Reviewed by:



Michael J. Wantland, MSgt, USAF
NCOIC Technical Operations Branch

TO:

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REPORT OF ANALYSIS

BASE SAMPLE NO: GT921265 OEHL SAMPLE NO: 92038002
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Major Components	See comment.		
m-Cresol	See comment.		
Barium	<10	mg/L	1311/6010
Cadmium	<0.1	mg/L	1311/6010
Arsenic	<0.5	mg/L	1311/7000
Selenium	<0.2	mg/L	1311/7000
Benzene	0.09	mg/L	1311/8240
Carbon tetrachloride	<0.05	mg/L	1311/8240
Chlorobenzene	<10	mg/L	1311/8240
Chloroform	<0.5	mg/L	1311/8240
2-Methylphenol	See comment.		
4-Methylphenol	See comment.		
1,4-Dichlorobenzene	<0.7	mg/L	1311/8270
1,2-Dichloroethane	<0.05	mg/L	1311/8240
1,1-Dichloroethene	<0.05	mg/L	1311/8240
2,4-Dinitrotoluene	<0.2	mg/L	1311/8270
Hexachlorobenzene	<0.2	mg/L	1311/8270
Hexachlorobutadiene	<0.2	mg/L	1311/8270
Hexachloroethane	<0.5	mg/L	1311/8270
Methyl ethyl ketone	<20	mg/L	1311/8240
Nitrobenzene	<0.2	mg/L	1311/8270
Pentachlorophenol	<10	mg/L	1311/8270
Pyridine	<0.5	mg/L	1311/8270
Vinyl chloride	<0.02	mg/L	1311/8240
Trichloroethylene	<0.05	mg/L	1311/8240
Tetrachloroethylene	<0.05	mg/L	1311/8240

TO:

AL/OEBE
BROOKS AFB, TX 78235-5000

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921265 OEHL SAMPLE NO: 92038002
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
2,4,5-Trichlorophenol	<40	mg/L	1311/8270
2,4,6-Trichlorophenol	<0.2	mg/L	1311/8270
Corrosivity	NP		
Hydrogen ion (pH)	NP		
Cyanide (total)	NP		
Sulfide	NP		
Chromium	<0.5	mg/L	1311/6010
Lead	3.0	mg/L	1311/6010
Silver	<0.5	mg/L	1311/6010
Mercury	<0.02	mg/L	1311/7000
Flash Point (closed cup)	<60	degrees F	EPA 1010

NP : Test Not Performed

Comments:

SAMPLE IS (TOP LAYER 80%) 98% ORGANIC SOLVENT (SIMILAR TO AN ALKYL KETONE) AND 2% WATER. (BOTTOM 20%) >99% SOLID.
CRESOL TOTAL = <20 mg/L.
THE PRACTICAL QUANTITATION LIMIT WAS ELEVATED FOR 2,4-DINITROTOLUENE AND HEXACHLOROBENZNE DUE TO DILUTION/MATRIX INTERFERENCES.
PREPARATION FOR METALS IS 3010, VOLATILES IS 5030 AND SEMI VOLATILES IS 3510.
< - Signifies none detected and the detection limits.

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921266 OEHL SAMPLE NO: 92038003
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920804
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Nitrobenzene	NP		
Major Components	See comment.		
Arsenic	<0.5	mq/L	3010/6010
Barium	<10	mq/L	3010/6010
Cadmium	<0.1	mq/L	3010/6010
Chromium	<0.5	mq/L	3010/6010
Lead	<2.0	mq/L	3010/6010
Mercury	<0.02	mq/L	3010/6010
Selenium	0.2	mq/L	3010/6010
Silver	0.6	mq/L	3010/6010
1,4-Dichlorobenzene	<2.0	mq/L	EPA 8270
2,4-Dinitrotoluene	<2.0	mq/L	EPA 8270
Hexachlorobenzene	<2.0	mq/L	EPA 8270
Hexachloroethane	<2.0	mq/L	EPA 8270
Hexachlorobutadiene	<2.0	mq/L	EPA 8270
2-Methylphenol	See comment.		
m-Cresol	See comment.		
4-Methylphenol	See comment.		
Pentachlorophenol	<10	mq/L	EPA 8270
Pyridine	<2.0	mq/L	EPA 8270
2,4,5-Trichlorophenol	<40	mq/L	EPA 8270
2,4,6-Trichlorophenol	<2.0	mq/L	EPA 8270
Flash Point (closed cup)	>200	degrees F	EPA 1010
Corrosivity	SINC		
Hydrogen ion (pH)	6.8		EPA 9040
Cyanide (total)	<25	ppm	EPA 9010

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
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REPORT OF ANALYSIS

BASE SAMPLE NO: GT921266 OEHL SAMPLE NO: 92038003
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920804
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Sulfide	<50	mq/L	EPA 9030

NP : Test Not Performed

SINC : Sample is not corrosive.

Comments:

SAMPLE IS 86% WATER AND 14% SOLVENT (SIMILAR TO BUTOXY CELLOSOLVE).
THE PRACTICAL QUANTITATION LIMIT WAS ELEVATED FOR 2,4-DINITROTOLUENE,
HEXACHLOROBENZENE, HEXACHLOROBUTADIENE, HEXACHLOROETHANE AND LEAD DUE
TO MATRIX INTERFERENCES.

All test methods conform to SW-846.

< - Signifies none detected and the detection limits.

Analyzed by: Raba-Kistner Consultants, Inc.

Reviewed by: 

Michael J. Wantland, MSgt, USAF
NCOIC Technical Operations Branch

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921267 OEHL SAMPLE NO: 92038005
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Major Components	See comment.		
Barium	<10	mg/L	1311/6010
Chromium	<0.5	mg/L	1311/6010
Arsenic	<0.5	mg/L	1311/7000
Cadmium	<0.1	mg/L	1311/6010
Lead	12	mg/L	1311/6010
Mercury	<0.02	mg/L	1311/7000
Silver	<0.5	mg/L	1311/6010
Carbon tetrachloride	<0.05	mg/L	1311/8240
Chlorobenzene	<10	mg/L	1311/8240
m-Cresol	See comment.		
2-Methylphenol	See comment.		
Benzene	<0.05	mg/L	1311/8240
4-Methylphenol	See comment.		
1,4-Dichlorobenzene	<0.7	mg/L	1311/8270
Chloroform	<0.5	mg/L	1311/8240
1,2-Dichloroethane	<0.05	mg/L	1311/8240
1,1-Dichloroethane	<0.05	mg/L	1311/8240
2,4-Dinitrotoluene	<0.3	mg/L	1311/8270
Hexachlorobenzene	<0.3	mg/L	1311/8270
Hexachlorobutadiene	<0.3	mg/L	1311/8270
Hexachloroethane	<0.5	mg/L	1311/8270
Methyl ethyl ketone	<20	mg/L	1311/8240
Nitrobenzene	<0.3	mg/L	1311/8270
Pentachlorophenol	<10	mg/L	1311/8270
Pyridine	<0.5	mg/L	1311/8270

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921267 OEHL SAMPLE NO: 92038005
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Vinyl chloride	<0.02	mg/L	1311/8240
Trichloroethylene	<0.05	mg/L	1311/8240
Tetrachloroethylene	<0.05	mg/L	1311/8240
2,4,5-Trichlorophenol	<40	mg/L	1311/8270
2,4,6-Trichlorophenol	<0.3	mg/L	1311/8270
Flash Point (closed cup)	<70	degrees F	EPA 1010
Corrosivity	NP		
Hydrogen ion (pH)	NP		
Cyanide (total)	NP		
Sulfide	NP		
Selenium	<0.2	mg/L	1311/7000

NP : Test Not Performed

Comments:

SAMPLE IS (TOP LAYER 70%) >99% ORGANIC SOLVENT (SIMILAR TO AN ALKYL KETONE). (BOTTOM LAYER 30%) >99% SOLIDS.
PREPARATION FOR METALS IS 3010, VOLATILES IS 5030 AND SEMI VOLATILES IS 3510. TOTAL CRESOL = <20 mg/L.
THE PRACTICAL QUANTITATION LIMIT WAS ELEVATED FOR 2,4-DINITROTOLUENE AND HEXACHLOROBENZENE DUE TO DILUTION/MATRIX INTERFERENCES.
< - Signifies none detected and the detection limits.

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921268 OEHL SAMPLE NO: 92038006
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Major Components	See comment.		
Arsenic	QNS		
Barium	QNS		
Cadmium	QNS		
Chromium	QNS		
Lead	QNS		
Mercury	QNS		
Selenium	QNS		
Silver	QNS		
Benzene	QNS		
Carbon tetrachloride	QNS		
Chlorobenzene	QNS		
Chloroform	QNS		
m-Cresol	QNS		
2-Methylphenol	QNS		
4-Methylphenol	QNS		
1,4-Dichlorobenzene	QNS		
1,2-Dichloroethane	QNS		
1,1-Dichloroethene	QNS		
2,4-Dinitrotoluene	QNS		
Hexachlorobenzene	QNS		
Hexachlorobutadiene	QNS		
Hexachloroethane	QNS		
Methyl ethyl ketone	QNS		
Nitrobenzene	QNS		
Pentachlorophenol	QNS		

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BROOKS AFB, TX 78235-5000

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921268 OEHL SAMPLE NO: 92038006
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Pyridine	QNS		
Vinyl chloride	QNS		
Trichloroethylene	QNS		
Tetrachloroethylene	QNS		
2,4,5-Trichlorophenol	QNS		
2,4,6-Trichlorophenol	QNS		
Flash Point (closed cup)	<70	degrees F	EPA 1010
Corrosivity	QNS		
Hydrogen ion (pH)	QNS		
Cyanide (total)	QNS		
Sulfide	QNS		

QNS : Quantity not sufficient for analysis.

Comments:

SAMPLE IS (TOP LAYER 50%) 98% ORGANIC SOLVENT (SIMILAR TO AN ALKYL ACETATE) AND 2% WATER. (BOTTOM LAYER 50%) 77% WATER, 18% GLYCOL BLEND AND <5% SOLIDS. AQUEOUS LAYER, QUANTITY NOT SUFFICIENT FOR TCLP.

< - Signifies none detected and the detection limits.

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921269 OEHL SAMPLE NO: 92038007
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Corrosivity	NP		
Major Components	See comment.		
Barium	<10	mg/L	1311/6010
Cadmium	<0.1	mg/L	1311/6010
Chromium	12	mg/L	1311/6010
Lead	<0.5	mg/L	1311/6010
Silver	<0.5	mg/L	1311/6010
Selenium	<0.2	mg/L	1311/7000
Benzene	<0.05	mg/L	1311/8240
Carbon tetrachloride	<0.05	mg/L	1311/8240
Chlorobenzene	<10	mg/L	1311/8240
Chloroform	<0.5	mg/L	1311/8240
m-Cresol	See comment.		
2-Methylphenol	See comment.		
4-Methylphenol	See comment.		
1,4-Dichlorobenzene	<0.7	mg/L	1311/8270
1,1-Dichloroethene	<0.05	mg/L	1311/8240
1,2-Dichloroethane	<0.05	mg/L	1311/8240
2,4-Dinitrotoluene	<0.2	mg/L	1311/8270
Hexachlorobenzene	<0.2	mg/L	1311/8270
Hexachlorobutadiene	<0.2	mg/L	1311/8270
Hexachloroethane	<0.5	mg/L	1311/8270
Methyl ethyl ketone	<20	mg/L	1311/8240
Nitrobenzene	<0.2	mg/L	1311/8270
Pentachlorophenol	<10	mg/L	1311/8270
Pyridine	<0.5	mg/L	1311/8270

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921269 OEHL SAMPLE NO: 92038007
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Vinyl chloride	<0.02	mg/L	1311/8240
Trichloroethylene	<0.05	mg/L	1311/8240
Tetrachloroethylene	<0.05	mg/L	1311/8240
2,4,5-Trichlorophenol	<40	mg/L	1311/8270
2,4,6-Trichlorophenol	<0.2	mg/L	1311/8270
Flash Point (closed cup)	<60	degrees F	EPA 1010
Hydrogen ion (pH)	NP		
Cyanide (total)	NP		
Sulfide	NP		
Arsenic	<0.5	mg/L	1311/7000
Mercury	<0.02	mg/L	1311/7000

NP : Test Not Performed

Comments:

SAMPLE IS (TOP LAYER 80%) 99% SOLVENT (SIMILAR TO AN ALKYL ACETATE) AND 1% WATER. (BOTTOM LAYER 20%) >99% SOLIDS.
PREPARATION FOR METALS IS 3010, VOLATILES IS 5030 AND SEMI VOLATILES IS 3510. TOTAL CRESOL = <20 mg/L.
THE PRATICAL QUANTITATION LIMIT WAS ELEVATED FOR 2,4-DINITROTOLUENE AND HEXACHLOROBENZENE DUE TO DILUTION/MATRIX INTERFERENCES.
< - Signifies none detected and the detection limits.

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921270 OEHL SAMPLE NO: 92038008
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920731
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Arsenic	<0.5	mg/L	3010/6010
Barium	<10	mg/L	3010/6010
Cadmium	<0.1	mg/L	3010/6010
Chromium	<0.5	mg/L	3010/6010
Lead	0.6	mg/L	3010/6010
Mercury	<0.02	mg/L	3010/6010
Selenium	<0.1	mg/L	3010/6010
Silver	<0.5	mg/L	3010/6010

Comments:

< - Signifies none detected and the detection limits.

Analyzed by: Raba-Kistner Consultants, Inc.

Reviewed by: 

Michael J. Wentland, MSgt, USAF
NCOIC Technical Operations Branch

TO:

AL/OEHE
BROOKS AFB, TX 78235-5000

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921271 OEHL SAMPLE NO: 92038009
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920806
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Major Components	See comment.		
Total Organic Halides	2000	mg/L	EPA 300.0
Flash Point (closed cup)	>200	degrees F	EPA 1010
Aroclor 1221	<5	mg/kg	EPA 8080
Aroclor 1232	<5	mg/kg	EPA 8080
Aroclor 1016	<5	mg/kg	EPA 8080
Aroclor 1242	<5	mg/kg	EPA 8080
Aroclor 1248	<5	mg/kg	EPA 8080
Aroclor 1254	<5	mg/kg	EPA 8080
Aroclor 1260	<5	mg/kg	EPA 8080
Arsenic	<1.0	mg/L	3010/6010
Cadmium	0.9	mg/L	3010/6010
Lead	27	mg/L	3010/6010
Chromium	2.6	mg/L	3010/6010
Hydrogen ion (pH)	6.4		EPA 9040

Comments:

SAMPLE IS >99% PETROLEUM HYDROCARBONS (SIMILAR TO OIL).
PREPARATION FOR TOX IS ASTM D AND FOR PCB SCREEN IS 3580.
< - Signifies none detected and the detection limits.

TO:

49 MEDICAL GROUP/MGPB
HOLLOMAN AFB, NM 88330-5300

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921272 OEHL SAMPLE NO: 92038010
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920804
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Major Components	See comment.		
Arsenic	<0.5	mq/L	3010/6010
Barium	<10	mq/L	3010/6010
Cadmium	<0.1	mq/L	3010/6010
Chromium	<0.5	mq/L	3010/6010
Corrosivity	SINC		
Lead	<0.5	mq/L	3010/6010
Mercury	<0.02	mq/L	3010/6010
Selenium	<0.1	mq/L	3010/6010
Silver	<0.5	mq/L	3010/6010
Flash Point (closed cup)	>200	degrees F	EPA 1010
Hydrogen ion (pH)	5.6		EPA 9040
Cyanide (total)	<25	ppm	EPA 9010
Sulfide	<50	ppm	EPA 9030

SINC : Sample is not corrosive.

TO:

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921272 OEHL SAMPLE NO: 92038010
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920804
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
-------------	----------------	--------------	---------------

Comments:

SAMPLE IS 73% WATER AND 27% SOLVENT FOR SHELLAC (WATER SOLUBLE)
CONTAINING PHENOL, BENZENEMETHANOL AND ALCOHOL.
THE PRACTICAL QUANTITATION LIMIT WAS ELEVATED FOR 2,4-DINITROTOLUENE
AND HEXACHLOROBENZENE DUE TO DILUTION/MATRIX INTERFERENCES.
All test methods conform to SW-846.
< - Signifies none detected and the detection limits.

Analyzed by: Raba-Kistner Consultants, Inc.

Reviewed by:



Michael J. Wentland, MSgt, USAF
NCOIC Technical Operations Branch

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921273 OEHL SAMPLE NO: 92038011
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920731
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS


<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Arsenic	<0.5	mg/L	3010/6010
Barium	<10	mg/L	3010/6010
Cadmium	<0.1	mg/L	3010/6010
Chromium	<0.5	mg/L	3010/6010
Lead	<0.5	mg/L	3010/6010
Mercury	<0.02	mg/L	3010/6010
Selenium	<0.1	mg/L	3010/6010
Silver	<0.5	mg/L	3010/6010

Comments:

< - Signifies none detected and the detection limits.

Analyzed by: Raba-Kistner Consultants, Inc.

Reviewed by:


Michael J. Wantland, MSgt, USAF
NCOIC Technical Operations Branch

TO:

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AIR FORCE
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BROOKS AFB, TEXAS. 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921274 OEHL SAMPLE NO: 92038012
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920805
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
2-Methylphenol	See comment.		
Major Components	See comment.		
Arsenic	<0.5	mq/L	3010/6010
Barium	<10	mq/L	3010/6010
Cadmium	<0.1	mq/L	3010/6010
Chromium	<0.5	mq/L	3010/6010
Lead	<0.5	mq/L	3010/6010
Mercury	<0.02	mq/L	3010/6010
Selenium	<0.1	mq/L	3010/6010
Silver	<0.5	mq/L	3010/6010
1,4-Dichlorobenzene	<2.4	mq/L	EPA 8270
2,4-Dinitrotoluene	<2.4	mq/L	EPA 8270
Hexachlorobenzene	<2.4	mq/L	EPA 8270
Hexachlorobutadiene	<2.4	mq/L	EPA 8270
Hexachloroethane	<2.4	mq/L	EPA 8270
Nitrobenzene	<2.4	mq/L	EPA 8270
m-Cresol	See comment.		
4-Methylphenol	See comment.		
Pentachlorophenol	<10	mq/L	EPA 8270
Pyridine	<2.4	mq/L	EPA 8270
2,4,5-Trichlorophenol	<40	mq/L	EPA 8270
2,4,6-Trichlorophenol	<2.4	mq/L	EPA 8270
Flash Point (closed cup)	>200	degrees F	EPA 1010
Corrosivity	SIC		
Hydrogen ion (pH)	13.		EPA 9040
Cyanide (total)	<25	ppm	EPA 9010

TO:

AL/OEHE
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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921274 OEHL SAMPLE NO: 92038012
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920805
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Sulfide	<50	ppm	EPA 9030
Benzene	<2.5	mq/L	EPA 8240
Carbon tetrachloride	<2.5	mq/L	EPA 8240
Chlorobenzene	<10	mq/L	EPA 8240
Chloroform	<2.5	mq/L	EPA 8240
1,2-Dichloroethane	<2.5	mq/L	EPA 8240
1,1-Dichloroethene	<2.5	mq/L	EPA 8240
Methyl ethyl ketone	<50	mq/L	EPA 8240
Vinyl chloride	<5.0	mq/L	EPA 8240
Trichloroethylene	<2.5	mq/L	EPA 8240
Tetrachloroethylene	<2.5	mq/L	EPA 8240

SIC : Sample is corrosive

Comments:

SAMPLE IS 82% WATER AND 18% ORGANIC SOLVENT (SIMILAR TO BUTOXY CELLOSOLVE). TOTAL CRESOL = <20 mq/L EPA 8270.
THE PRACTICAL QUANTITATION LIMIT WAS ELEVATED FOR BENZENE, CARBON TETRACHLORIDE, 1,2-DICHLOROETHANE, 1,1-DICHLOROETHYLENE, 2,4-DINITROTOLUENE, HEXACHLOROBENZENE, HEXACHLOROBUTADIENE, NITROBENZENE, TETRACHLOROETHYLENE, TRICHLOROETHYLENE, 2,4,6-TRICHLOROPHENOL AND VINYL CHLORIDE DUE TO DILUTION/MATRIX INTERFERENCES. All test methods conform to SW-846.
< - Signifies none detected and the detection limits.

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE
BROOKS AFB, TEXAS, 78235-5000

REPORT OF ANALYSIS

BASE SAMPLE NO: GT921275 OEHL SAMPLE NO: 92038004
SAMPLE TYPE: WASTE, HAZARDOUS/TOXIC/DISPOSAL
SITE IDENTIFIER: DATE RECEIVED: 920626
DATE COLLECTED: 920623 DATE REPORTED: 920804
SAMPLE SUBMITTED BY: 49 MEDICAL GROUP/MGPB

RESULTS

<u>Test</u>	<u>Results</u>	<u>Units</u>	<u>Method</u>
Arsenic	<0.5	mq/L	3010/6010
Barium	<10	mq/L	3010/6010
Cadmium	<0.1	mq/L	3010/6010
Chromium	<0.5	mq/L	3010/6010
Lead	<0.5	mq/L	3010/6010
Mercury	<0.02	mq/L	3010/6010
Selenium	<0.1	mq/L	3010/6010
Silver	<0.5	mq/L	3010/6010
Flash Point (closed cup)	NP		
Corrosivity	SINC		
Hydrogen ion (pH)	6.7		EPA 1311
Cyanide (total)	<25	ppm	EPA 9010
Sulfide	<50	ppm	EPA 9030

NP : Test Not Performed

SINC : Sample is not corrosive.

Comments: .

All test methods conform to SW-846.

< - Signifies none detected and the detection limits.

TO:

AL/OEBE
BROOKS AFB, TX 78235-5000

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